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**Title:** Detection Of Shock-heated Gas Using The Sz Effect In Rxj1347-1145

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### **Abstract**

Using the MUSTANG 3.3 mm bolometer array on the GBT we have measured the Sunyaev-Zel'dovich Effect (SZE) in the most x-ray luminous cluster known, RXJ1347-1145 ( $z=0.45$ ) at a resolution of  $10''$  (fwhm). This is the highest resolution image of the SZE to date and confirms previous indications of a localized departure from pressure equilibrium in the form of a small, very hot ( $>0$  keV) parcel of gas, presumably resulting from a merger shock. We discuss the measurements, their interpretation, and future work.